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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/470,566 | 12/22/1999 | KENDYL A. ROMAN | | 6309 |

7590 03/26/2003

KENDYL A ROMAN
730 BANTRY COURT
SUNNYVALE, CA 940873402

EXAMINER

SENFI, BEHROOZ M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2613 | |

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|---------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/470,566 | ROMAN ET AL. |
| | Examiner Behrooz Senfi | Art Unit 2613 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 January 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
 - 4a) Of the above claim(s) 21-24 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-24 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,10.
- 4) Interview Summary (PTO-413) Paper No(s). _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed Jan 17, 2003 have been considered but they are not persuasive.

Response to remarks:

Applicant asserts (Paper no. 9, page 12) that Hoffert '853 fails to teach selecting "a code based on a number of bits from each pixel". Examiner disagrees.

Hoffert '853 clearly shows selecting a code based on the number of the bits (figs. 2, 5a, col. 7, lines 52 – 53, col. 6, lines 56+).

Applicant asserts (Paper no. 9, page 12) that Hoffert '853 "run-length encoding repeated instances are repeated blocks not repeated pixels". Examiner disagrees.

It is true that Hoffert '853 teaches repeated blocks. However, the run-length codes are based on the pixels of those repeated blocks, which substantially reads on the limitation as claimed.

Applicant asserts (Paper no. 9, page 12) that Hoffert '853 fails to teach "repeating steps (b) and (c) until each pixel is encoded in an encoded data buffer" and also Hoffert fails to teach "streaming buffer". Examiner disagrees.

Hoffert '853 teaches assurance of repeating until all pixels are done (col. 12, lines 5+), and also teaches streaming buffer (fig. 9, buffer 50), which meets the limitations as claimed.

Applicant asserts (Paper no. 9, page 13) that Hoffert '853 and Brusewitz should not be combined. Examiner disagrees.

The combine teaching of Hoffert '853 and Brusewitz '862 would have been obvious, because Brusewitz '862 teaches that sub-sampling is needed for varying size images to avoid aliasing. Applicant is attacking the individual merits of the references when the prior art rejection under 35 USC 103 is based on the combined teaching of the references. One cannot show non-obviousness by attacking references individually. *In re Keller*, 208 USPQ 871 (CCPA 1981).

Applicant asserts (Paper no. 9, page 14, lines 1+) that Hoffert '853 fails to teach "number of bits is five". Examiner agrees in part.

It is correct that Hoffert '853 does not disclose using a five bits code as claimed, but rather, a 16-bits code is preferred. However, Hoffert is not limited to just a 16-bits code and obviously would have been capable of accommodating a 5-bit code.

Applicant asserts (Paper no. 9, page 14, lines 10+) that Hoffert '853 fails to teach "image is an enhanced representation of the original image". Examiner disagrees.

Hoffert '853 (col. 1, lines 66 – 68) clearly teaches the above subject matter.

Applicant asserts (Paper no. 9, page 14, lines 13+) that Hoffert '853 fails to teach "selection of five bits by extracting the five most significant bits of each pixel". Examiner agrees in part.

It is correct that Hoffert '853 fails to explicitly teach "extracting five most significant bits". However, in Hoffert '853, a 16-bit word for example is broken down into several portions that dictate the encoding process. For instance, in a 16-bit word, first two bits are for encoding mode and 5 bits for color and another 5 bits for another color and at last a 4 bits for the third color. Thus, if the encoding is set to determine the

coding mode, then the first two significant bits will determine such coding mode. Thus, in Hoffert, extracting significant bits to identify certain coding processes is impliedly taught.

Applicant asserts that (Paper no. 9, page 14) Hoffert '853 fails to teach "code is obtained from an encoded table" and also "pixel values are obtained from a decode table". Examiner disagrees.

Hoffert '853 (col. 9, lines 29 and lines 35) teaches bit-map and pixel bit-map, which is similar to encoded/decoded table as claimed.

Applicant asserts that (Paper no. 9, page 15) Hoffert '853 fails to teach "MUX function as to combine". Examiner disagrees.

Hoffert '853 teaches multiplexer (fig. 15), and the functionality of the multiplexer is combining two or more data.

With respect to applicants (Paper no. 9, pages 15, and 16) argument regarding "encryption".

It is correct that Hoffert '853 fails to explicitly teach "encryption". However, Hoffert teaches code tables 19, 23, 25, 29 and 33, which would have served the equivalence of encryption table because the same coding tables must be available at the decoder in order to properly decode the encoded data.

Specification

2. The amendment filed Jan 17, 2003 with regards to added new claims is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of

the invention. The added material as recited in the claims which are not supported by the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

3. Claims 21 – 24 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Furthermore, applicants submit (paper no. 9, page 17, section E) that new claims 21 – 24 are the same as claims 28 – 31. However, there are no claims 28 – 31 in the application.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffert et al. (US 5,047,853) in view of Brusewitz et al. (US 6,384,862).

Regarding claims 1 and 15, Hoffert '853 discloses compression and decompression of Digital video data (i.e. fig. 1, col. 1, lines 15+), selecting a code based on a number of bits from each pixel selected from pixels (i.e. fig. 2), run-length encoding repeated instances (i.e. fig. 10, 107), repeating steps until each pixel is encoded in an

encoded data buffer (i.e. col. 12, lines 1+) and as for repeating steps, the digital video compression process (disclosed by Hoffert '853) is an iterative process of pixels, which meets the claimed limitations of repeating steps (b) and (c), and for streaming buffer is an inherent feature necessitated by the digital video processing for storing the digital video and transmitting.

Although, Hoffert '853 fails to explicitly teach Sub-sampling pixels from an image.

However, the above mention claimed limitations are well-known in the art as evidenced by Brusewitz '862, in particular (i.e. fig. 1, sub-sampler 20, col. 1, lines 41+) teaches sub-sampling image.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the system of Hoffert '853 as taught by Brusewitz '862 for customizing the images to the viewer's specifications (i.e. col. 1, lines 10+).

Regarding claims 2 - 3, combination teaching of Hoffert '853 and Brusewitz '862 Teaches setting and assigning temporal resolution rate of e.g. 1/30th of second (i.e. col. 6, lines 33+ of Hoffert '853), therefore it would have been obvious to reduce or increase the sub-sampling rate base on desired design, and as for image dimension, since the image dimension is related to sub-sampling rate, therefore it would have been obvious to assign a rate base on desired image dimension.

Regarding claims 4 and 5, combination of Hoffert '853 and Brusewitz '862 teaches number of bits is five (i.e. fig. 1 of Hoffert '853).

Regarding claims 6 and 7, combination of Hoffert '853 and Brusewitz '862 teaches series of buffer (i.e. fig. 1, 22 and 30 of fig. 1 of Brusewitz '862) and storage (i.e. fig. 1, storage 34).

Regarding claim 8, claim 8 is the decompression part of claim 1, and combination of Hoffert '853 and Brusewitz '862 teaches decompression (i.e. col. 2, lines 57+ of Hoffert '853), combining (i.e. fig. 15, Mux 149).

Regarding claims 9 - 10, the limitations claimed are substantially similar to claims 2 – 3, therefore the grounds for rejecting claims 2 – 3 also apply here.

Regarding claims 11 – 12 and 20, the limitations claimed are substantially similar to claims 4 - 5, therefore the grounds for rejecting claims 4 – 5 also apply here.

Regarding claims 13 – 14 and 16, fig. 3, code tables 19, 23, 25, 29 and 33, and also fig. 2, are equivalent to encryption table only if the end user has the table.

Regarding claim 17 and 18, Note, having a storage medium or/and communications transmission channel as input/output device would have been obvious and well-known in the prior art of record.

Regarding claim 19, the limitations claimed are substantially similar to claims 8 and 15, therefore the grounds for rejecting claims 8 and 15 also apply here.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications

from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2613

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. J.

3/19/03


VULE
PRIMARY EXAMINER